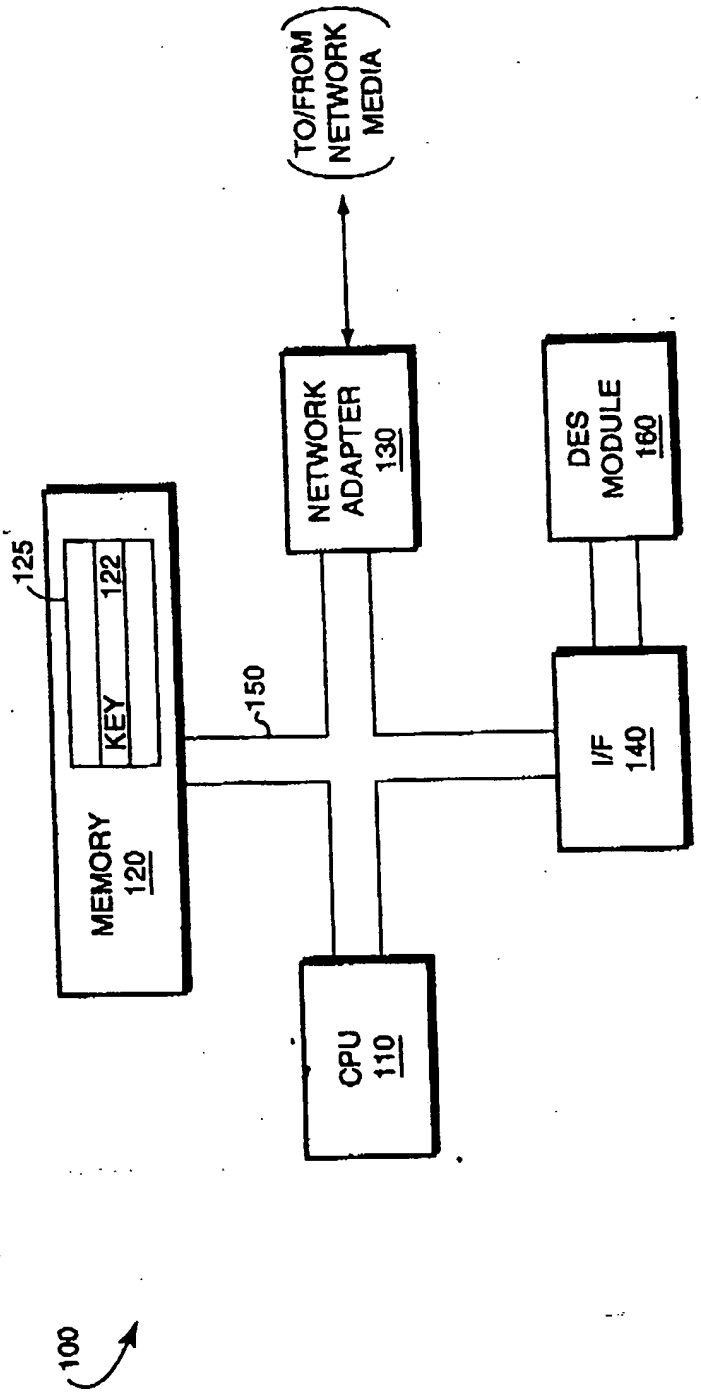

FIG. 1
PRIOR ART

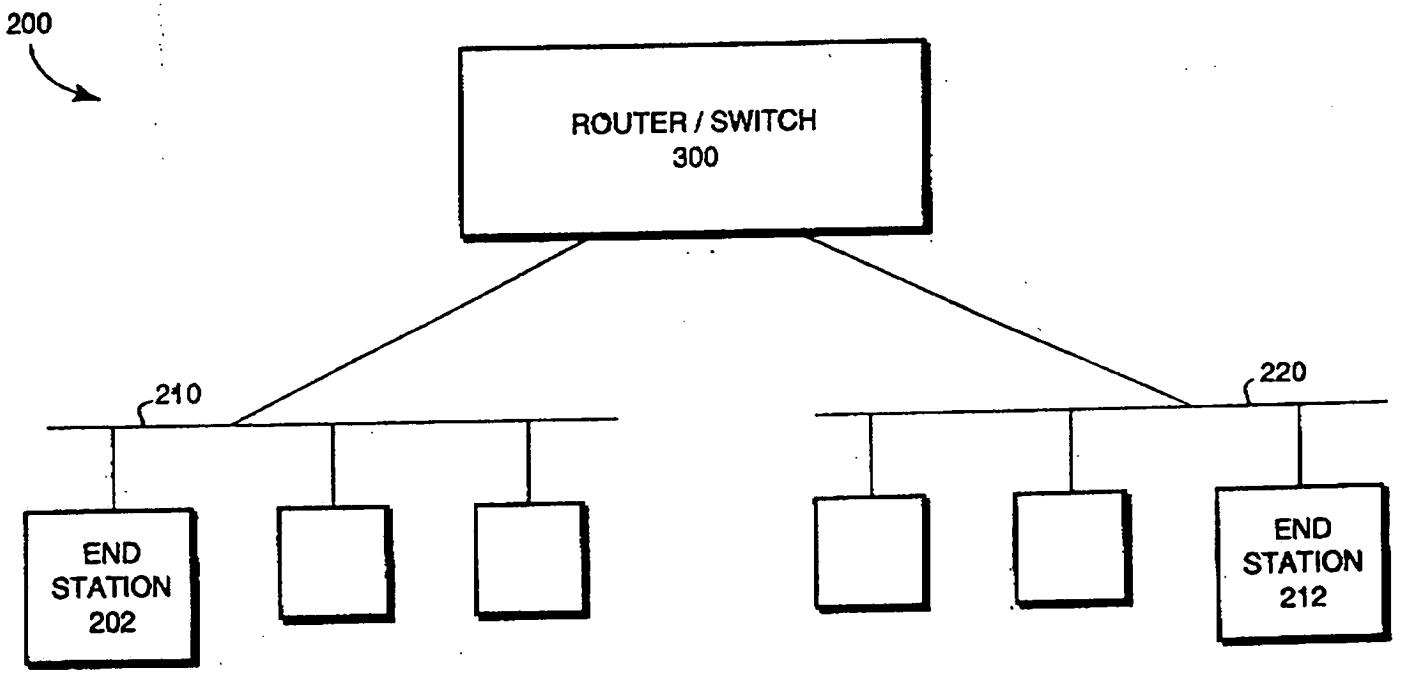
200
ROUTER / SWITCH
300
210
220
END
STATION
202
END
STATION
212

FIG. 2

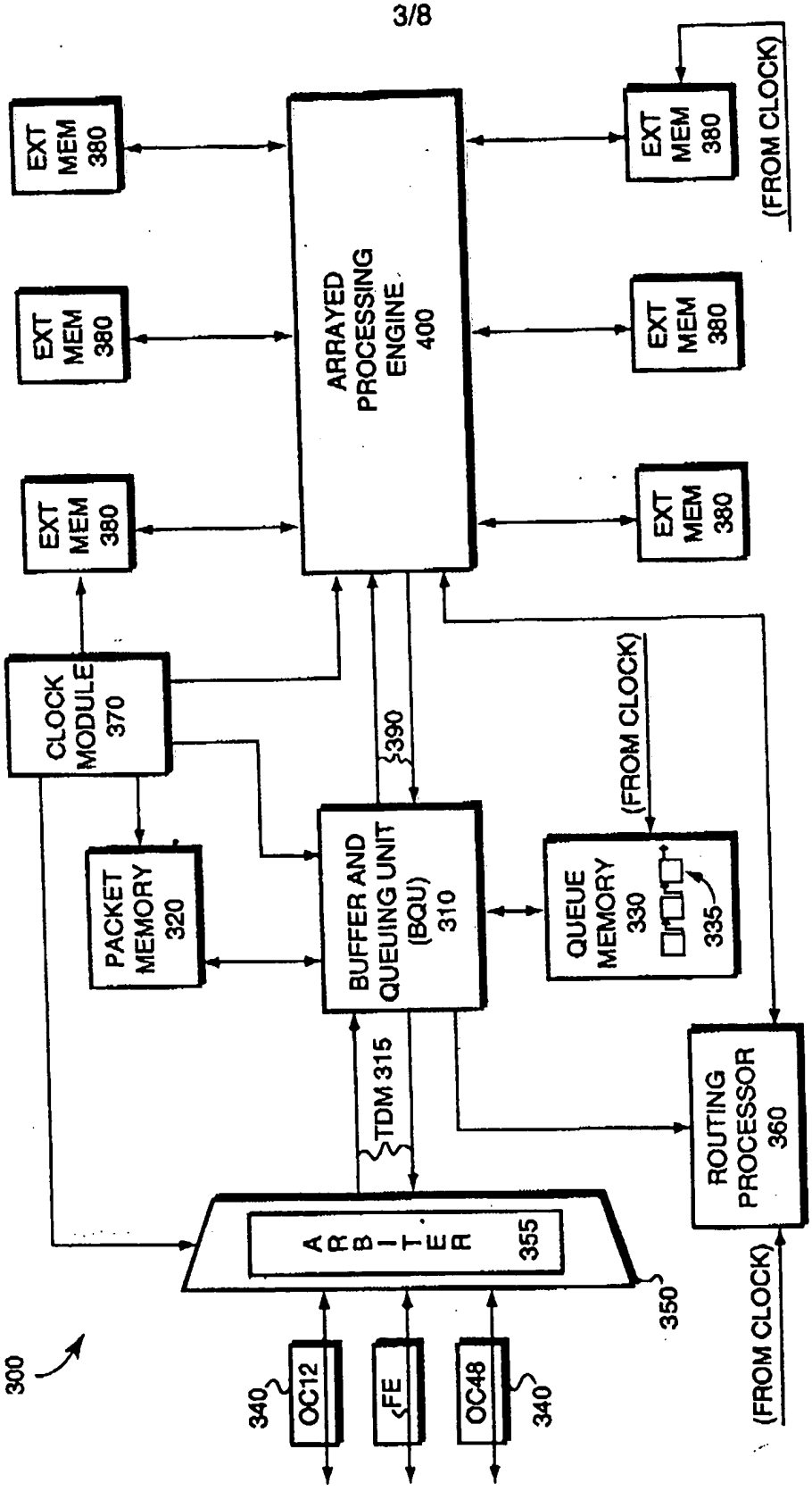
EXT MEM 380
EXT MEM 380
EXT MEM 380
EXT MEM 380
EXT MEM 380
EXT MEM 380
(FROM CLOCK)
ARRAYED PROCESSING ENGINE 400
CLOCK MODULE 370
390
(FROM CLOCK)
PACKET MEMORY 320
BUFFER AND QUEUING UNIT (BQU) 310
QUEUE MEMORY 330
335
TDM 315
ROUTING PROCESSOR 360
ARBITER 355
350
300
340
OC12
FE
OC48
340
(FROM CLOCK)

FIG. 3

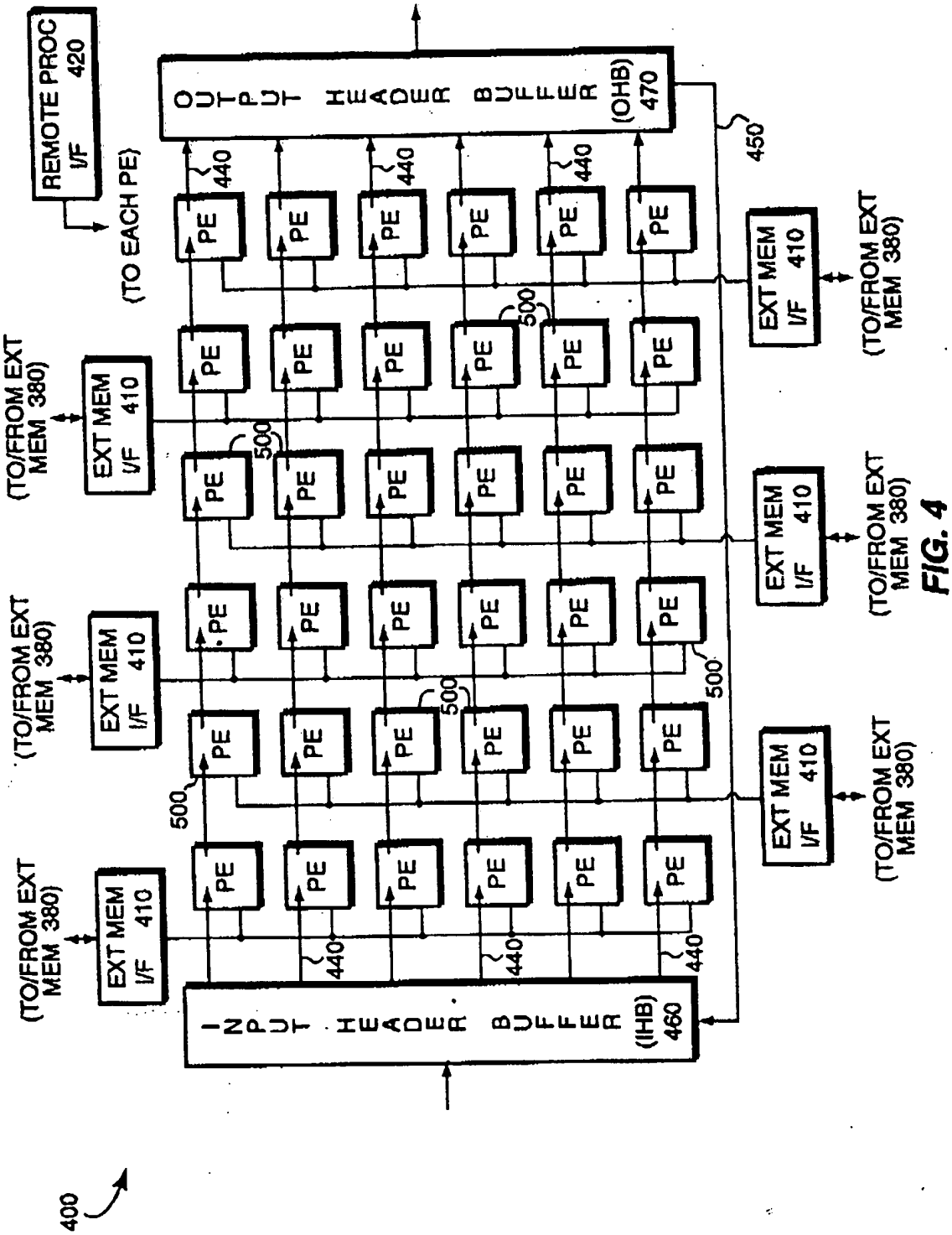
400
INPUT HEADER BUFFER (IHB) 460
OUTPUT HEADER BUFFER (OHB) 470
REMOTE PROC I/F 420
(TO EACH PE)
EXT MEM I/F 410
(TO/FROM EXT MEM 380)
PE
440
450
500

FIG. 4

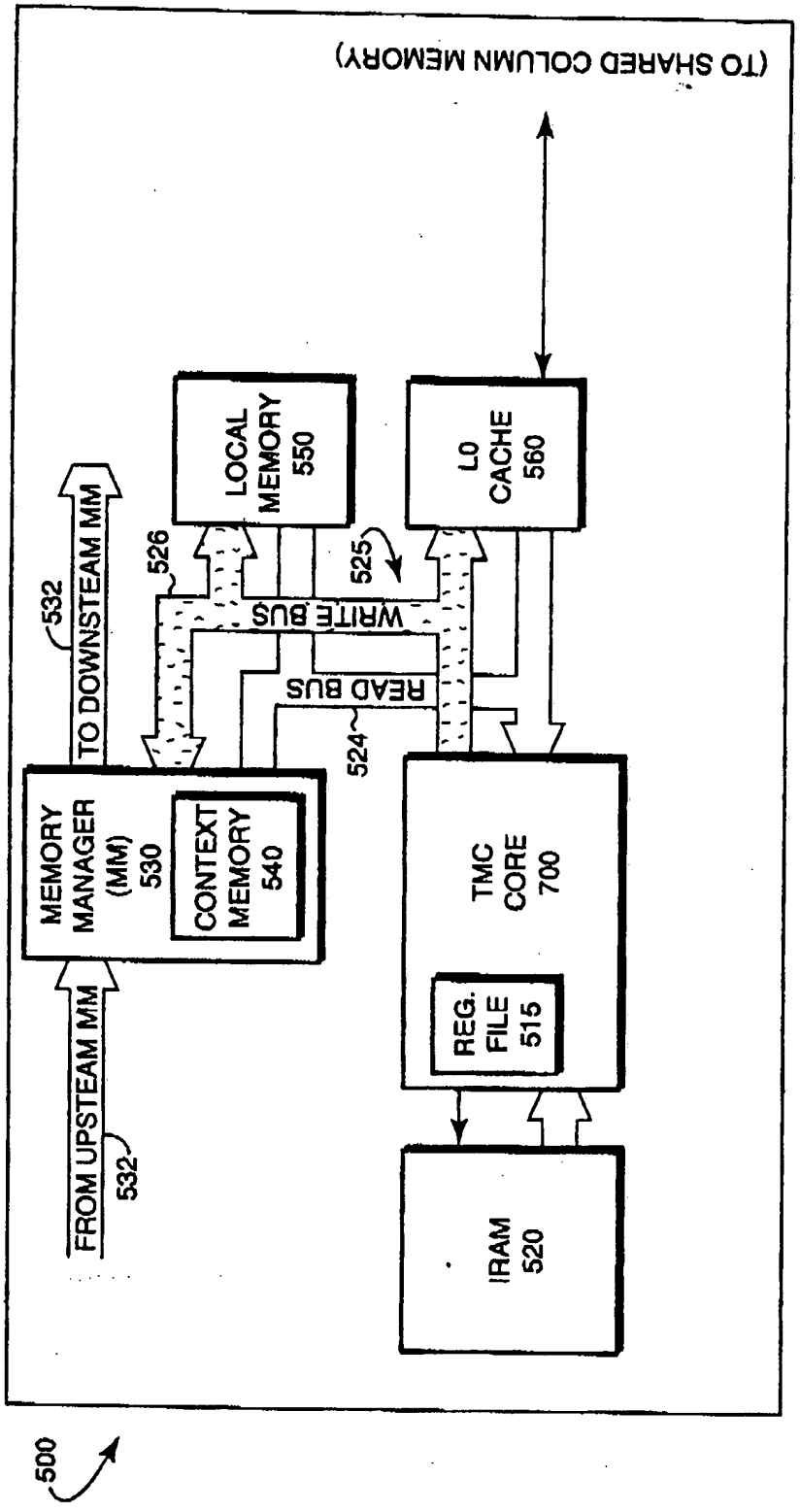
(TO SHARED COLUMN MEMORY)
LOCAL MEMORY 550
L0 CACHE 560
526
525
WRITE BUS
READ BUS
524
532
TO DOWNSTEAM MM
MEMORY MANAGER (MM) 530
CONTEXT MEMORY 540
TMC CORE 700
REG. FILE 515
FROM UPSTEAM MM
532
IRAM 520
500

FIG. 5

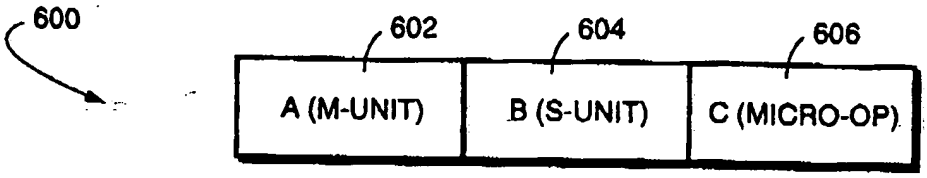

FIG. 6

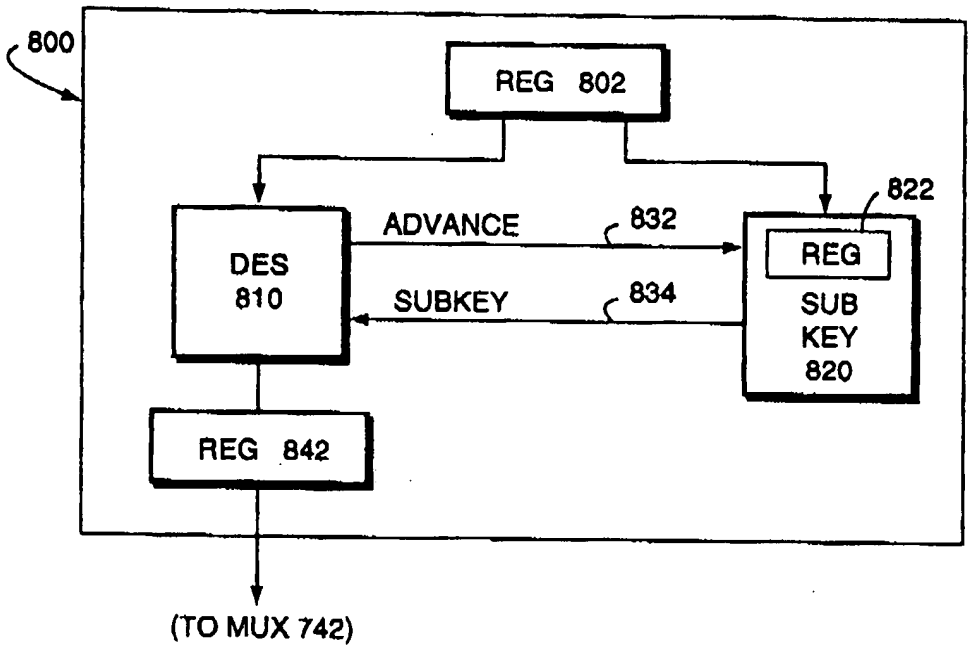

FIG. 8

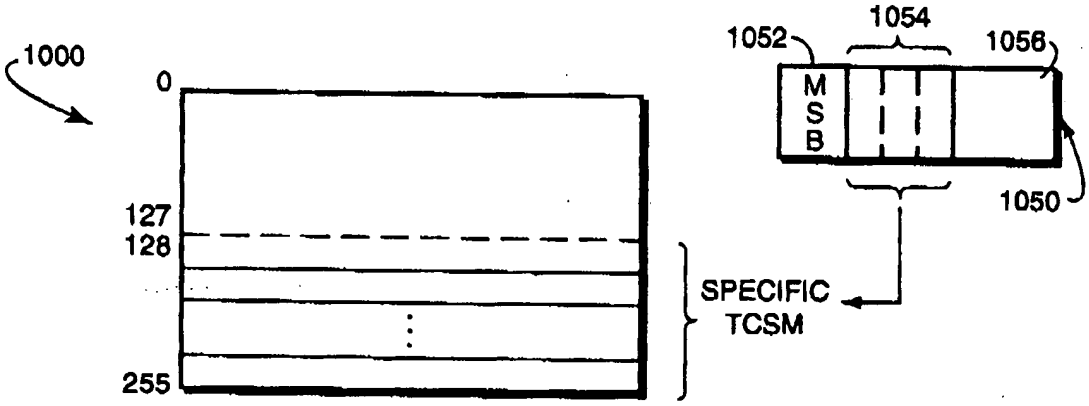

FIG. 10

06824 "US5752260

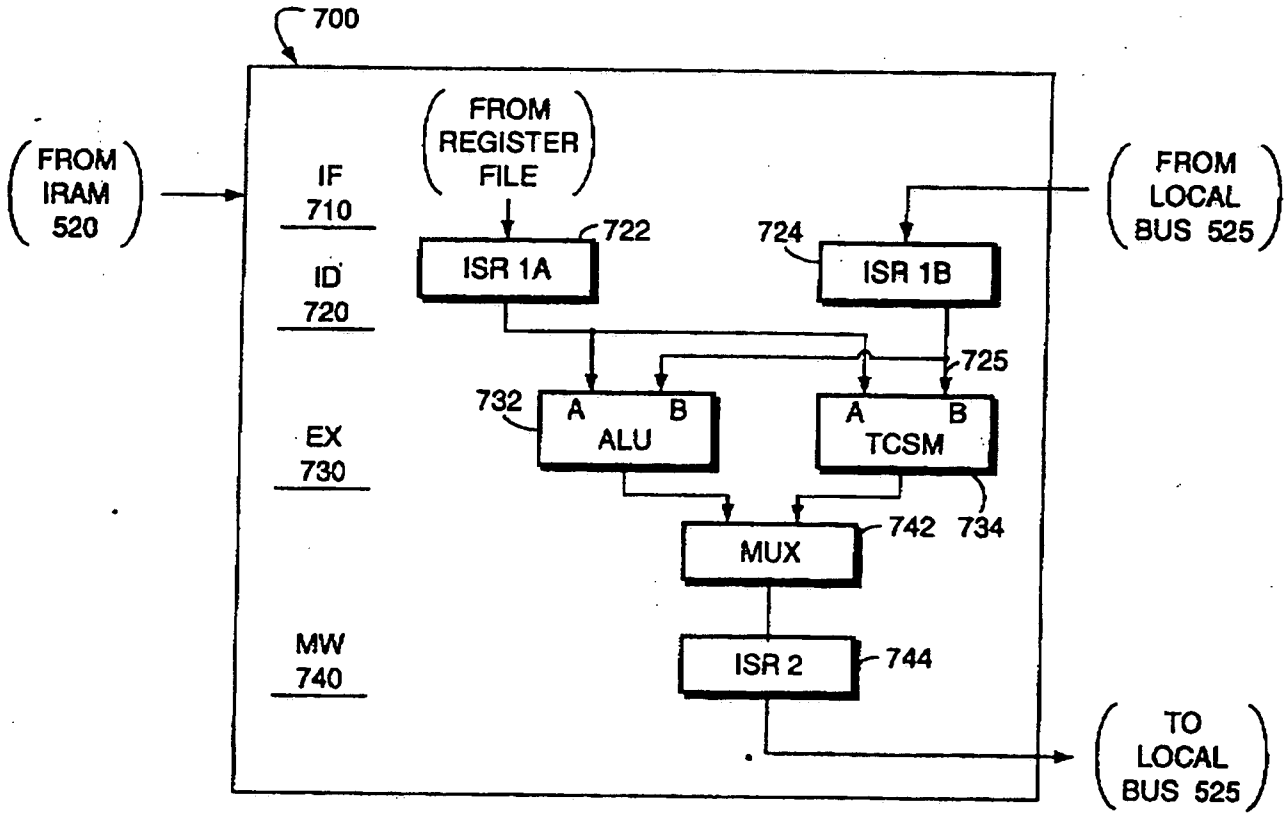

FIG. 7

900

INITIALIZE:

910 ~ XDES ENCRYPT

LOAD INITIAL KEY:

920 ~ MOR rØ, rØ, KEY(rØ) (922) INIT KEY (924)

LOAD PLAINTEXT AND START DES:

930 ~ MOR rØ, rØ, PLAIN(rØ) DES
(SINGLE DES FUNCTION)

LOAD CIPHERTEXT:

910 ~ SPR, IAR, DES-RESULT

WRITE CIPHERTEXT:

950 ~ MOR CIPHER(rØ), rØ, rØ TR

960 ~ MOR (rl), rØ, PLAINI(rØ) DES

FIG. 9